

### REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is requested.

In accordance with 37 CFR 1.121, the claims which are being currently amended are presented with markings to indicate the changes that have been made relative to the immediate prior version.

#### Elections/Restriction

The Examiner indicated that the application contains claims directed to the following patentably distinct species of the claimed invention:

Species I: Figs. 29-32; and

Species II: Figs 33-35.

The Examiner pointed out that, in a telephone conversation with the Applicant's agent on July 19, 2005, a provisional election was made with traverse to prosecute the invention of species to the claims related to such species being claims 11-14.

The Applicant affirms such election. Claims 1-10 have been withdrawn accordingly.

#### Claim Rejections – 35 U.S.C. §102

Claim 11 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,395,476 (Moss et al.). In view of the Examiner's comments in this regard, claim 11 has been cancelled.

**Claim Rejections - 35 U.S.C. §103**

Claims 12 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,395,476 (Moss et al.).

The Applicant has rewritten claim 12 so that it is now in independent form, including the subject matter of claim 11 and claim 12 as filed. Also, claim 13 has been amended so that the curved portions are defined as being spaced apart from each other by a randomly selected distance. Support for this amendment to claim 13 can be found in paragraph 00120 of the specification.

The Examiner's comments regarding claims 12 and 13 as filed were as follows:

Moss et al. discloses the applicant's basic inventive concept except for placing the curved portions randomly on the screen. The applicant discloses in the specification on page 34, paragraph 00120, that the curved portions do not have to be randomly placed on the screen. It would have been an obvious matter of design choice to modify Moss et al. to randomly place the curved portions on the screen since the applicant fails to provide any advantage to placing the curved portions randomly on the screen and the arrangement of the curved portions on the screen taught by Moss et al. would work equally well. In regard to claim 13, the curved portions on opposite ends of the screen are spaced apart.

The Applicant submits that the advantage resulting from randomly positioning curved portions in the screen is set out in the specification. In paragraph 0080, the following comment is made:

The curvature of the upper portion of diffusing member 46" may be appropriately chosen to further simulate the turbulent and random pattern of a real flame.

Also, in paragraph 0091, the correlation between randomness and a more natural simulated flame image is stated as follows (referring to a flicker element):

The non-linear nature of the reflected light patterns improves the realism of the flicker in the simulated flame by causing the flickering patterns of reflected light to appear more random and therefore more natural.

This excerpt is quoted here only to provide another example from the specification in which a more random occurrence of an image of flames is described as being more natural, and therefore providing a more effective simulation.

In paragraph 00120, the screen (1142) is described as "having a front surface (1145) . . . for diffusing and transmitting light". The screen (1142) also has a back surface (1167), described as follows:

[The back surface] is preferably curved in a vertical direction and in a horizontal direction in a manner selected so as to further simulate the random fluctuations of real flames. Preferably, and as shown in Figs. 33-35, the screen includes a plurality of curved portions (1149) which are randomly and irregularly positioned on the screen, randomly spaced apart from each other. The curved portions (1149) can be of different sizes, and each can be curved to a different extent.

The functioning of the screen is described as follows:

The fluctuating light transmitted through the curved portions (1149) of the screen (1142) is attenuated, or modified, and one or more three-dimensional images of flames appears through the screen (1142).

From the foregoing, it can be seen that the screen (1142) disclosed in Figs. 33-35 is, in its function, very similar to the diffusing member (46") disclosed in Fig. 16. The Applicant submits that, as disclosed in the foregoing excerpts from the

specification, the advantages of randomly positioned curved portions (1149) are shown.

The Examiner has referred to the following statement in paragraph 00120:

Alternatively, the curved portions (1149) could be of substantially uniform size and shape (or at least partially uniform), and they could also be spaced apart on a non-random basis.

The Applicant submits that this sentence refers to an alternative embodiment in which the curved portions are spaced apart on a non-random basis, and also in which the curvature and the size of the curved portions may not necessarily be random. However, the Applicant submits that this is a description of an alternative embodiment, which is distinguished from the preferred embodiment.

The following is from §706.02(j) of the Manual of Patent Examining Procedure:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

The Applicant submits that Moss et al. teaches away from the Applicant's invention as defined in amended claims 12 and 13. Moss et al. discloses an "electric illumination device" which includes a "viewing screen through which flickering light is viewed" (col. 1, lines 28-31). The viewing screen is:

... in the form of a transparent or translucent panel having a striated light-diffusing surface formed thereon by producing on the said panel a

multiplicity of closely-adjacent thin substantially horizontal lines extending across the panel . . . (col. 1, lines 31-36)

Whether the striations are on a front or on a back surface of the panel is not explicitly stated. However, from Fig. 2 and the following description, it appears that the striations are formed on the front surface of the panel:

. . . the line-bearing light-diffusing surface of the screen (9) has a plurality of forward-presented parallel convex portions 13. (col. 2, lines 48-50)

The problem which Moss et al. appears to be directed to providing a solution for is described as follows (col. 1, lines 49-60):

The viewing screen, in the said embodiment may if desired be flat, but it has been found that if the screen is flat, a better visual effect is obtained if the viewer, is looking directly at the screen from the front, and if he looks at it obliquely as from one side the desired effect may not be obtained. [sic] Preferably, with a view to obviating the defect, the viewing screen and the aforesaid embodiment is not flat but has a forwardly-presented convex surface or surface portions bearing the closely-adjacent lines produced on the transparent or translucent panel.

In the foregoing, a "defect" is referred to. The nature of the defect is somewhat unclear. However, it appears that the defect is the appearance of the striations on the panel to a viewer. It seems that, where the screen is flat, the striations are distracting to the viewer, and Moss et al. appears to be directed to minimize the extent to which the striations distract the viewer.

Accordingly, in the electric fire disclosed in Moss et al., a screen is positioned which is described as follows (col. 2, lines 22-68):

[The] viewing screen (9) [is] in the form of a translucent or transparent panel 10 made of a plastic . . . and having a striated, light-diffusing surface formed thereon by abrading on a panel a multiplicity of closely-adjacent

thin horizontal, or near horizontal, broken or unbroken transverse lines or striae (11), the said lines (11) extending from one side to the other of the panel (10). . . .

The viewing screen (9), consisting of the panel (10) provided with the lines (11), is of corrugated form in horizontal cross-section (FIG. 2), whereby the line-bearing light-diffusing surface of the screen (9) has a plurality of forwardly-presented parallel convex portions (13). . . .

The above-described arrangement, wherein the viewing screen (9), having the lines (11) thereon, is disposed in the path of the red or orange flickering light reflected from the reflector (8), results in the simulated appearance, to the viewer, of long upwardly-shooting flames.

If desired, the viewing screen may, instead of being vertically corrugated, be of a vertical trough form having a forwardly-presented line-bearing light-diffusing single convex surface extending from one side of the screen to the other.

The line-bearing viewing screen may of desired be flat, or have a forwardly-presented single concave surface bearing the lines, although as hereinbefore indicated, a screen having a forwardly-presented convex surface or surface portions, bearing the lines, is preferred.

Accordingly, the Applicant submits that Moss et al. does not disclose any motivation to provide randomly sized and shaped curved portions on the screen, as defined in amended claims 12 and 13 herein. Instead, Moss et al. discloses a motivation to make the striations on the screen less noticeable to the viewer by providing either a regularly positioned series of convex portions (to provide a "corrugated" form as shown in Fig. 2) or a screen which presents a single convex or concave portion.

In addition, referring to the second criterion set out in s. 706.02(j) of MPEP, there would not appear to be a reasonable expectation of success, e.g., if the features set out in amended claim 12 were used in the Moss et al. screen. It would

appear that the non-curved portions between the randomly positioned curved portions of the Applicant's screen would not address the problem of striations appearing on a flat screen in the Moss et al. device.

Also, Moss et al. does not teach or suggest all of the claim limitations in the amended claims 12 and 13 enclosed. In amended claim 12, for example, the curved portions are described as being randomly positioned on the screen. Moss et al. does not teach or suggest randomly positioning curved portions on the screen - on the contrary, Moss et al. teaches using regular corrugations or a single large convex or concave shape.

In claim 13, the curved portions are described as being spaced apart from each other by a randomly selected distance. The Applicant submits that Moss et al. does not teach or suggest randomly selecting the distances by which curved portions of the screen are spaced apart.

In summary, the Applicant submits that none of the three basic criteria of s. 706.02(j) of MPEP is met with respect to either amended claim 12 or amended claim 13. Accordingly, the Applicant submits that Moss et al. neither teaches nor suggests the invention as defined in amended claims 12 and 13.

Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Moss et al. in view of U.S. Patent 6,393,207 (Martin et al.).

The Examiner's comments regarding claim 14 were as follows:

Moss et al. discloses the applicant's basic inventive concept except for placing a flame effect element between the flicker element and the screen. Martin et al. shows in Figure 3 the idea of placing a flame effect element (86) between the flicker element (84) and the screen (114). In view of the teachings of Martin et al. it would have been obvious to one in the art to modify Moss et al. by placing a flame effect element between the flicker

element and the screen since this would create a more realistic and aesthetically pleasing flame effect.

In Martin et al., a "flame simulation assembly" is disclosed, which is said to include:

. . . a light source (82), a light randomizer (84), a reflective panel (132), and a light filter screen (86). (col. 5, lines 61-63)

The light randomizer (84) is "a hollow cylinder or tube" (92) which is made of a sheet of material with openings (98) in it (col. 6, lines 16-23). The cylinder rotates around the light source, so that "the position, shape, and intensity of the light passing through the cylinder (92) will change" (col. 6, lines 49-51). The light filter screen (86) is described as follows:

The translucent area 106 of the light filter screen 86 necessarily limits the area of light from the light randomizer 84 that strikes the back of the light diffuser screen 46.

The light filter screen 86 also changes the color of the light striking the back of the light diffuser screen 46. . . . The colors are selected to simulate the color of actual flames . . . (col. 7, lines 20-49)

In contrast, in the Applicant's invention, light from the light source (1130) is caused to flicker or fluctuate by a flicker element (1161) which directs the flickering light through a flame effect element (1158), as shown in Fig. 35 and as described in paragraphs 00121 and 00122 in the specification. The flame effect element (1158) "configures the fluctuating light to form the images of flames" (paragraph 00122). As described elsewhere in the specification, the flame effect element has apertures in it which are generally flame-shaped (see, e.g., paragraphs 00071 (referring to flame effect element 58'), 00101 (referring to flame effect element 558), 00106 (referring to flame effect element 758), 0111 (referring to flame effect element 858), and 00116 (referring to flame effect element 958). The Applicant therefore submits that the function performed by



the flame effect element (1158) is different from that performed by the light filter screen (86). In fact, the flame effect element (1158) is functionally more similar to the randomizer (84).

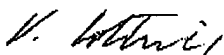
In summary, the Applicant submits that Martin et al. neither teaches nor suggests positioning a flame effect element between the flicker element and the screen of the Applicant's invention, because Martin et al. does not have all of the claim limitations of claim 14 (i.e., the third criterion of s. 706.02(j) of MPEP), as Martin et al. does not disclose elements which correspond closely to all the elements of the Applicant's invention as defined in claim 14.

As noted above, the Applicant submits that Moss et al. neither teaches nor suggests the invention as defined in the amended claims 12 and 13. Claim 14 is dependent on claim 12. The Applicant also submits that, in view of the foregoing, neither Moss et al. nor Martin et al. teaches or suggests the invention as disclosed in amended claim 14.

No additional fee is due.

On the basis of the enclosed documents and the foregoing remarks, reconsideration of this application and its early allowance are requested.

Respectfully submitted,  
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